

TRINA J. DAVIS

STEM Education, Learning Design & Technology Program
Texas A&M University, Department of Teaching, Learning, and Culture
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EDUCATION

Ph.D. Texas A&M University, College Station, TX, 2005.
Curriculum and Instruction, Concentration: Educational Technology

M.S. Prairie View A&M University, Prairie View, TX, 1999.
Mathematics, Thesis Research Area: Nonparametric Statistics

B.S. Virginia Commonwealth University, Richmond, VA, 1990.
Mathematical Sciences, Concentration: Applied Mathematics

Certificates

Texas Lifetime Certificate in Secondary Mathematics (Grades 6-12), Endorsement in Gifted and Talented Education.

RESEARCH INTERESTS

Teaching and Learning in Online/Immersive Environments/3-D Simulations/VR
Design/Evaluation of Technology Enhanced Learning Experiences and Technological Tools
Technology Enhanced Mathematics/STEM/STEAM Learning
Digital Equity

PROFESSIONAL EXPERIENCE

Texas A&M University

Academic Program Chair of STEM Education, Texas A&M University, College of Education and Human Development, Department of Teaching, Learning and Culture, June 2024-Present.

Associate Professor (with tenure), Texas A&M University, College of Education and Human Development, Department of Teaching, Learning and Culture, STEM Education, August 2023-Present.

Associate Professor (with tenure), Texas A&M University, College of Education and Human Development, Department of Teaching, Learning and Culture, Technology and Teacher Education, August 2014-2023.

Academic Program Chair of Technology, Teacher Education, C&I, Texas A&M University, College of Education and Human Development, Department of Teaching, Learning and Culture, August 2017-2018.

Assistant Professor, Texas A&M University, College of Education and Human Development, Department of Teaching, Learning and Culture, 2006-2014.

Lecturer, Texas A&M University, College of Education and Human Development, Department of Teaching, Learning and Culture, 2005-2006.

Director, Middle School Aerospace Scholars Program, Web Development and Online Delivery. Contract with NASA Johnson Space Center. Texas A&M University, 2001-2006.

Director, eEducation, Texas A&M University, College of Education and Human Development, Department of Teaching, Learning and Culture, 2000-2007.
Director, Partnership for Environmental Education and Rural Health (PEER), Texas A&M University, College of Education and CERH, 1999-2002.
Director, Ocean Drilling Distance Learning Program, Texas A&M University, Colleges of Education and Geosciences, 1999-2001.
Program Coordinator, South Central Regional Technology in Education Consortium (SCR*TEC-TX), Texas A&M University, College of Education, Office of the Dean, 1997-2000.

ACADEMIC & PROFESSIONAL HONORS AND AWARDS

Scragg, B., Davis, T., *Norton, M.*, Mishra, P., & Anbar, A. Designing the future of undergraduate STEM education: An inter-institutional and interdisciplinary approach. Best Paper Award, Society for Information Technology and Teacher Education (SITE) International Conference, 2021.
Extraordinary Service Award, College of Education and Human Development, Dean's Development Council, 2017.
2015 Top 30 Technologists Transformers and Trailblazers Award, Center for Digital Education (National).
ADVANCE Scholar, Texas A&M University, 2015-2017.
Student Recognition Award for Teaching Excellence, Texas A&M University System, Office of the Chancellor, February 2011.
President's National Volunteer Service Award (Gold Level), President's Council on Service and Civic Participation, Washington, D.C., 2009.
President Obama Transition Team Meeting, Washington, D.C., 2009. | [Link](#)
President - International Society for Technology in Education (ISTE), 2007 – 2009.
Co-Chair, National Education Computing Conference, ISTE Digital Equity Summit, 2007.
Making it Happen Achievement Award (International/National). Awarded at the National Education Computing Conference, July 2006.
Online Learning Advisory Committee, U.S. Department of Education, 2006.
Co-Chair, National Education Computing Conference, ISTE Leadership Symposium, 2004.
Co-Chair, National Education Computing Conference, Minority Leadership Symposium, 2002.
Academy for Advanced Telecommunications and Learning Technologies, Senator Jack Fields' Scholarship Recipient (National), 1999-2000.
United States Department of Education, Bilingual and Multicultural Education Doctoral Fellow (National), Texas A&M University, 1998-2001.
Waller Independent School District, Teacher of the Year (Regional/Local), 1996-1997.
Waller Independent School District Educational Foundation Grant Recipient (Local), 1995-1997.

Community College

Mathematics Instructor, Houston Community College, Northwest Campus, 1992-1995.

K-12 Public Schools

Gifted and Talented Program Coordinator, Jones Intermediate School, Waller Independent School District, Waller, TX, 1996-1997.
Technology Coordinator and Distance Learning Facilitator, Waller Independent School District, Waller, TX, 1993-1997.
Mathematics Teacher (Grade 6) and Gifted and Talented Teacher, Jones Intermediate School, Waller Independent School District, Waller, TX, 1992-1996.
Long Term Substitute Teacher (Grades K and 5), Cypress-Fairbanks Independent School District, Cypress, TX, 1990-1992.

FUNDED GRANTS AND CONTRACTS

- 2025 – 2026 Zhuang, Y. (Principal Investigator), **Davis, T.J.**, & Yao, X. (Co-Investigators). *Empowering Preservice Math Teachers to Build Argumentation Skills through GenAI*. College of Education and Human Development, Emerge: AI Grant (\$49,815), (02/2025 –07/2026). Role: Co-Principal Investigator (Research Grant).
- 2018 – 2020 Mendoza Diaz, N. (Principal Investigator), **Davis, T.J.**, & Sanchez, J. (Co-Principal Investigators). *Academy of sTem Teachers from Community Colleges*. College of Education and Human Development, Catapult Triad + 2019 Grant (\$10,000). Role: Co-Principal Investigator (Research Grant).
- 2017 – 2020 Weichold, M. (Principal Investigator), Tornquist, S., **Davis, T.J** (Co-Principal Investigators). *RET Site: SECURE: Secure Teacher Education on Cybersecurity by Utilizing Research Experiences*, National Science Foundation (\$600,000/3 years), (04/01/2017 – 03/31/2020) (Research Grant).
- 2016 – 2017 Raven, S. (Principal Investigator), Craig, C., **Davis, T.J.**, Hill-Jackson, V., & Scott, T. (Co-Principal Investigators). *The CREST Project: Community Research through Engagement in STEM Teaching*. College of Education and Human Development, Catapult Grant (\$30,000). Role: Co-Principal Investigator (Research Grant).
- 2016 – 2017 Raven, S. (Principal Investigator), Craig, C., **Davis, T.J.**, & Hill-Jackson, V. (Co-Principal Investigators). *The CREST Project: Community Research through Engagement in STEM Teaching*. TLAC, Renew, Rebuild, and Reinvest Grant (\$34,700). Role: Co-Principal Investigator (Research Grant).
- 2015 – 2016 Larke, P. J. (Principal Investigator), Wijekumar, K., Webb-Hasan, G., **Davis, T.J.**, James, M. Caldwell, H., Singleton, J., & Quek, F. (Co-Principal Investigators). *Elementary Girls Engaging in Math and Science (E-GEMS) and Teacher Education Transformation and Research (TETR): NSF and IES Proposals for Federal Funding*. Department of Teaching Learning, and Culture (\$26,200.), (06/01/2015 – 12/31/2016). Role: Co-Principal Investigator (Research Grant).
- 2010 – 2016 Kulm, G. (Principal Investigator), Allen, G.D., & **Davis, T.J.** (Co-Principal Investigators). *Preservice Teachers' Knowledge for Teaching Algebra for Equity in the Middle Grades*. National Science Foundation (\$2,802,983/5 years), (09/01/2010 – 08/31/2016). Role: Co-Principal Investigator (Research Grant).
- 2008 – 2008 **Davis, T.** (Principal Investigator), & Waxman, H. *Evaluating Districts' Readiness for Online Testing*. Texas Education Agency, subcontract from Pearson (\$221,918/7 months), (05/05/08– 12/31/08). Role: Principal Investigator (Research Grant).
- 2008 – 2009 Carpenter, S., & **Davis, T.** *Establishing the TAMU-Digital Humanities and Visual Culture Education and Research Island in Second Life*. Melbern G. Glasscock Center for Humanities Research and Sterling C. Evans Chair.

- (\$10,000/2 years), (09/01/08 – 08/31/10). Role: Co-Principal Investigator (Research Grant).
- 2007 – 2010 Lewis, C., Capraro, R., Carpenter, S., **Davis, T.**, Collins, T., & Quiroz, B. *New traditions*. Doctoral recruitment grant from Texas A&M University. (\$349,000/3 years), (8/1/07 – 7/31/10). Role: *Co-Principal Investigator.
- 2006 – 2008 Erwin, B., & **Davis, T.J.** *Verizon Early Reading Online Project*. Verizon Foundation Grant. 2006-2008 (\$94,340). Role: *Co-Principal Investigator.
- 2005 – 2007 **Davis, T.J.**, & Denton, J.J. Contract with NASA Johnson Space Center, *Middle School Aerospace Scholar Program*. December 1, 2005 – November 30, 2007 (\$61,600). Role: Co-Principal Investigator & Director.
- 2002 – 2007 Denton, J.J., & **Davis, T.J.** *Opening Pathways for Teacher Instructional Opportunities in Natural Science*. Baylor College of Medicine. August 1, 2002 – July 31, 2007 (\$292,000). Role: Co-Principal Investigator.
- 1999 – 2002 Johnson, L. (Principal Investigator), Denton, J.J. (Co-Principal Investigator), & **Davis, T.J.** (Director and Investigator). *Environmental and Rural Health Education Partnership*. National Institutes of Health. September 1, 1999 – August 31, 2002 (\$638,400).
- 1999 – 2001 Denton, J.J. (Principal Investigator), Baldauf, J. (Co-Principal Investigator), & **Davis, T.J.** (*Director and Investigator). *Telecommunications: A conduit to the earth science frontier*. Telecommunications Infrastructure Fund Board. September 1, 1999 – February 2, 2001 (\$351,399).
- 1999 – 2000 **Davis, T.** (Principal Investigator and Director), Ham, R., (Co-PI) & Cifuentes, L. (Co-PI) Microsoft Corporation, Teacher Training at Microsoft Program 1999, (\$30,000).

SUBMITTED

- Jan. 2024 Shryock, K. (Principal Investigator), Davis, T., & Banerjee, A. (Co-Principal Investigators). *E3GAIT Empowering Engineering Education Using Generative AI for Tutoring*, National Science Foundation (\$899,283/3 years), 09//2024 – 08/2027 (Research Grant).
- Jan. 2024 Nepal, B. (Principal Investigator), Kalathil, D., Davis, T., & Banerjee, A. (Co-Principal Investigators). *RET Site: RET Site in Applied Data Science, AI, and Machine Learning*, National Science Foundation (\$599,001/3 years), 10//2024 – 09/2027 (Research Grant).

SUBMITTED, NOT FUNDED

- Dec. 2023 Aldemir, T. (Principal Investigator), Davis, T., & Yalvac, B. (Co-Principal Investigators). *Co-Design for Pre-service Teachers' Professional Development in Integrated STEM*, School of Education and Human Development, Catapult Grant (\$30,000/1.5 years), 02/2024 – 07/2025 (Research Grant).

- April 2021 Shryock, K. (Principal Investigator), Lawley, C., & Davis, T. (Co-Principal Investigators). *Collaborative Research: Partnering with Institutions on a Vision for Engineering Transfer Student Success (PIVET2)*, National Science Foundation ((\$4,595,788/6 years), 10/01/2021 – 09/30/2027 (Research Grant).
- Nov. 2020 Zoghi, B. (Principal Investigator), Craig, C. (Co-Principal Investigator) & Davis, T. J., (Evaluator/Other Personnel). *Inclusion of Narratives of Underrepresented Diversity in Engineers (INcl-UDE)*. National Science Foundation (\$199,156./1 year), 09/01/21 – 08/31/22 (Research Grant).
- Dec. 2020 Craig, C. (Principal Investigator), De Miranda, M. & Davis, T. J., (Co-Principal Investigators). *Culturally Responsive Instructional STEAM Program (CRISP)*, National Science Foundation (\$599,963/2 years), 06/01/2020 – 05/31/2022 (Research Grant).
- Jan. 2020 Hammond, T. (Principal Investigator), Alexander-Packard, G., Childs, M. (Co-Principal Investigator), Other Senior Personnel, & Davis, T. J. (Senior Personnel). *Driven by Theory, Understood by Theorists: an NSF Research Institute on Trustworthy, Transparent, Explainable, and Equitable AI*. National Science Foundation (\$20,000,000./5 years), 09/01/20 – 08/31/25 (Research Grant).
- May 2020 Lawley, C. (Principal Investigator), Shryock, K., Tornquist, S., & Davis, T. J., (Co-Principal Investigators). *Aggies Invent Junior to Advance and Sustain Interest in Engineering Targeting Diverse Populations*, National Science Foundation (\$2,798,541/5 years), 09/01/2020 – 08/31/2025 (Research Grant).
- March 2019 Shryock, K. (Principal Investigator), Davis, T. J., Lawley, C. (Co-Principal Investigators). *Partnering with Institutions on a Vision for Engineering Transfer Student Success (PIVET2)*, National Science Foundation ((\$5,000,000/5 years), 10/01/2019 – 09/30/2024 (Research Grant).
- Dec. 2017 Lawley, C. (Principal Investigator), Shryock, K., Tornquist, S., Davis, T. J. (Co-Principal Investigators), *Aggies Invent Junior to Advance and Sustain Interest in Engineering Targeting Diverse Populations*. Submitted to the National Science Foundation (Under Review), \$2,836,110. 7/1/18- 6/30/23.
- Nov. 2017 Craig, C. (Principal Investigator), Raven, S., & Davis, T. J. (Co-Principal Investigators). *An Examination of the Challenges and Supports of Induction-Year Middle and High School STEM Teachers*. Role: Co-Principal Investigator. Submitted to the National Science Foundation (\$449,957). 9/1/18-8/31/20.
- Dec. 2016 Davis, T. J. (Principal Investigator), Kulm, G. *Preservice Teachers' – Knowledge of Algebra Teaching for Equity (P-KATE)*. Role: Principal Investigator. Submitted to the National Science Foundation (\$2,588,713). 9/1/17- 8/31/21.
- Dec. 2016 Craig, C. (Principal Investigator), McDonald, D., Sack, J., Davis, T. J., & Raven, S. *Teaching STEM in Urban, Secondary Schools: Challenges and Support During the Induction Years*. Role: Co-Principal Investigator. Submitted to the National Science Foundation (\$450,000). 9/1/18-8/31/21.

- 2011 Capraro, R. (Principal Investigator), Capraro, M.M., Davis, T.J., Goddard, R., Loving, C., J. Morgan, & J. Scheurich. Evaluation of the Harmony Charter School Model for Student STEM Success (HCSMS³). Role: Co-Principal Investigator. Submitted to the National Science Foundation (\$1,922,141.) on 3/11/11.
- 2007 - 2008 Davis, T.J. (Principal Investigator), Erwin, B. (Co-Principal Investigator) An Online Professional Development Model: Preservice Teachers Explore Thinkfinity.org. Verizon Foundation Grant (\$80,000).

PUBLICATIONS

REFEREED JOURNAL ARTICLES

1. Bicer, A., Aldemir, T., **Davis, T. J.**, & Young, J. (2025). Exploring the transferability of STEM PBL instructional principles from higher education to K-12 classrooms. *Education Sciences*, 15(1), 39. <https://doi.org/10.3390/educsci15010039>
2. Bicer, A., Jung, H., Aldemir, T., **Davis, T. J.**, Gooden, M., Sanders, M., & Krall, G. (under review). Not just the utility of mathematics but its beauty in the context of STEM PBL. *International Journal of Science and Mathematics Education*.
3. **Davis, T. J.**, & Craig, C. J. (revision). From online and digital divides to empowerment: A narrative inquiry into elementary STEM teachers' experiences at a dual language academy. *Education Sciences*.
4. **Whitaker, A. C.**, & **Davis, T. J.**, Neshyba, M. V. (2022). Exploring middle school students' reading and writing experiences and the impact of culturally relevant writing instruction. *Journal of Multicultural Affairs*, 7(2), Article 2.
5. **Davis, T. J.**, Merchant, Z., & Kwok, O.M. (2022). An examination of practice-based virtual simulations and preservice mathematics teaching efficacy and outcome expectancy. *Education Sciences*, 12, 262. <https://doi.org/10.3390/educsci12040262>
6. **Ortiz, N. A.**, & **Davis, T. J.** (2020). Gladys's lesson plan: A culturally relevant exemplar. *Mathematics Teacher: Learning and Teaching PK-12*, 113(8), 651-657.
7. Henderson, M., Henriksen, D., Carvalho, A., Cernochova, M., Creely, E., Dash, D., **Davis, T.**, & Mishra, P. (2020). Creativity and risk-taking in teaching and learning settings: Insights from six international narratives. *International Journal of Educational Research Open*, 2(2), 100024.
8. Wang, K., Kuo, L., Li, Y., & **Davis, T. J.** (2017). Review of IES funded projects on mathematics education in the U.S. *Journal of Mathematics Education*, 26(5), 82-88.
9. **Kulm, G.**, Merchant, Z., Ma, T., Oner, A. T., **Davis, T.**, & Lewis, C. W. (2016). Algebra problem solving equity challenges: Building middle school preservice teachers' diversity awareness. *Teacher Education and Practice: STEM Special Edition*, 29(4), 642-659.
10. **Kidd, T. T.**, **Davis, T. J.**, & Larke, P. J. (2016). Experience, adoption, and information technology: Exploring the phenomenological experience of faculty involvement in online teaching. *International Journal of E-Learning*. 15(1), 71-99.
11. Ma, T., Brown, I., Kulm, G., **Davis, T. J.**, & Allen, D. (2014). Constructing and role-playing student avatars in a simulation of teaching algebra for diverse learners. *Urban Education*, 51(5), 534-555. DOI: 10.1177/0042085914542658
12. **Merchant, Z.**, Goetz, E., Keeney-Kennicutt, W., Kwok, O., Cifuentes, L., & **Davis, T. J.** (2014). Effectiveness of virtual reality-based instruction on students' learning outcomes in K-12 and higher education: A meta-analysis. *Computers & Education*, 70, 29- 40. (Impact Factor Thomson R: 2.621)

13. **Chien, C-F., **Davis, T.**, Slattery, P., Keeney-Kennicutt, W., & Hammer, J. (2013). Development of a virtual Second Life curriculum using currere model. *Journal of Educational Technology & Society*, 16(3), 204-219. (Impact Factor Thomson R: 1.011)
14. **Merchant, Z., Goetz, E., Keeney-Kennicutt, W., Kwok, O., Cifuentes, L., & **Davis, T. J.** (2013). Exploring 3-D virtual reality technology for spatial ability and chemistry achievement. *Journal of Computer Assisted Learning*, 29(6), 579- 590. (Impact Factor ISI: 1.464).
15. ***Davis, T.**, Chien, C., Brown, I., & Kulm, G. (2012). Knowledge for algebra teaching for equity (KATE) project: An examination of virtual classroom simulation approaches, National Forum of Multicultural Issues Journal, 9(2), 67-87.
16. **Davis, T. J.**, Stilisano, J. R., & Waxman, H. C. (2012). A statewide evaluation of districts readiness for large-scale online testing: Unique perceptions and challenges from diverse school districts' lenses. *Journal of the Texas Alliance of Black School Educators*, 4, 33-54.
17. **Merchant, Z., Goetz, E., Keeney-Kennicutt, W., Kwok, O., Cifuentes, L., & **Davis, T. J.** (2012). The learner characteristics, features of desktop 3D virtual reality environments, and college chemistry instruction: A structural equation modeling analysis. *Computers & Education*, 59(2), 551- 568. (Impact Factor Thomson R: 2.621)
18. *Brown, I. A., **Davis, T. J.**, Lewis, C. W., & Kulm, G. (2011). Preservice teachers' knowledge for teaching algebra for equity in the middle grades: A preliminary report. *Journal of Negro Education*, 80(3), 266-283.
19. Denton, J.J., **Davis, T.J.**, Capraro, R.M., Smith, B.L., Beason, L., Graham, D., & Strader, R.A. (2009). Examining applicants for admission and completion of an online teacher certification program. *Journal of Educational Technology & Society*, 12(1), 214-229.
20. Denton, J., **Davis, T.**, Smith, B., Beason, L., Graham, D., & Strader, A. (2008). Assessment benchmarks for an alternative certification program. *Journal of the National Association for Alternative Certification*, 3(2), 28-42.
21. Denton, J.J., & **Davis, T.J.** (2007). Challenges of recruiting candidates with strong academic credentials. *School Science and Mathematics Journal*, 107(4), 121-122.
22. Denton, J., **Davis, T.**, Smith, B., Strader, A., Clark, F., & Wang, L. (2006). Technology mentor fellowship program: A technology integration professional development model for classroom teachers. *National Forum of Teacher Education Journal*, 16(3). Available online at: <http://www.nationalforum.com>
23. Denton, J. J., **Davis, T. J.**, Smith, B. L., Strader, R. A., Clark, F. E., & Wang, L.* (2005). Net generation undergraduates as technology mentors for teacher educators. *National Forum of Teacher Education Journal*, 17E(3). Available at: <http://www.nationalforum.com>
24. Denton, J., **Davis, T.**, Smith, B., & Strader, A. (2005). The technology mentor fellowship program (TMFP) model for professional development and sustainability of technology infusion initiatives. *Texas Journal of Distance Learning*, 2(2), 69-85. Available at <http://www.tjdl.org/articles/v2i2/mentor/>
25. Jolly, D.V., **Davis, T.**, Strader, R.A., & Denton, J. (1999). Issues related to technology in teacher education programs and K-12 public schools in Texas. *Journal of Educational Technology & Society*. 2(3), 1436-452.

In Revision/In Progress

- *Avci, H., Pedersen, S., Rambo-Hernandez, K., & **Davis, T.J.** Exploring factors influencing secondary school teachers perceived digital competence in the United States: A multilevel analysis. *American Educational Research Journal: Sage Journals*.
- Mohammadi, M. McIntush, K., Davis, T. J., Rackley, R., Luna Arvizu, L. P., & Etchells, M. J. U. S. Pre-service teacher technology proficiency self-assessment of international technology education standards.

- ****Banerjee, M., Davis, T. J., & Waxman, H.** (manuscript edits - sending out for review). STEM teachers and technology integration: How does technology integrated professional development shift perceptions of challenges to technology use in classrooms.
- ****Strader, M. & Davis, T. J.** (manuscript development). An examination of teachers' understanding of self-efficacy in a Texas virtual school digital learning environment context.
- ****Adam, K. & Davis, T. J.** (manuscript development). A systematic scoping review of secondary computing education studies in the U. S.
- **Davis, T. J., & Nudze, W. Y.** (data analysis and manuscript development). Artificial intelligence-based simulations: A systematic scoping review.
- **Davis, T. J., & Craig, C. J.** (manuscript development). Pandemic impact of an afterschool mathematics program with partner teachers: A narrative inquiry.
- **Davis, T. J.** (manuscript development). A fourteen-year examination of synchronous, immersive, and asynchronous approaches across online courses.

* Student co-author or co-presenter. ** Indicates a publication from a student's dissertation.

REFEREED PROCEEDINGS

26. *Luna Arvizu, L. P., Carrillo, G. & Davis, T. (2024), Exploring AI-generated content in interactive books using H5P. In T. Bastiaens (Ed.) *Proceedings of the EdMedia + Innovate Learning* (pp. 224-228). Brussels, Belgium: Association for the Advancement of Computing in Education (AACE). Retrieved July 17, 2024 from <https://www.learnteclib.org/primary/p/224527/>
27. *Luna Arvizu, L. P., & Davis, T. J. (2024), Improving active learning using an interactive document tool and thinking routines. *Proceedings of the Society for Information Technology and Teacher Education International Conference*, Las Vegas, NV. United States: Association for the Advancement of Computing in Education (AACE).
28. Scragg, B., Davis, T., Norton, M., Mishra, P., & Anbar, A. (2021). Designing the future of undergraduate STEM education: An inter-institutional and interdisciplinary approach. In E. Langran & L. Archambault (Eds.), *Proceedings of the Society for Information Technology and Teacher Education International Conference* (pp. 827-836). Online, United States: Association for the Advancement of Computing in Education (AACE).
29. ****Ortiz, N. A., & Davis, T. J.** (2019). Planning for equity: Analyzing the cultural relevance of pre-service teachers' lesson plans. In S. Otten, A.G., Candela, Z., de Araujo, C. Haines, & C. Munter (Eds.), *Proceedings of the forty-first annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)*. St. Louis, MO.
30. Oner, A. T., Indiogine, S.E. P., Kulm, G., Hao, H., Davis, T., & Ortiz, N. (2015) The response of preservice teachers to algebraic misconceptions of students. *Proceedings of the annual meeting of Research Council on Mathematics Learning (RCML)*, Las Vegas, NV.
31. *Ortiz, N. A., Davis, T. J., & Kulm, G. (2015). A culturally relevant approach to equity inside a virtual simulation mathematics classroom. In M. J. Mohr-Schroeder & J. Thomas (Eds.), *Proceedings of the 114th annual convention of the School Science and Mathematics Association Conference*, Oklahoma City, OK: SSMA.
32. *Merchant, Z., Kulm, G., Davis, T. J., Ma, T., & Oner, A. T. (2013). Integrating culturally relevant pedagogy in a mathematics problem-solving course: Pre-service teachers' diversity awareness growth trajectories. In M. Martinez & A. Castro Superfine (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 944).
33. ****Kidd, T. T. & Davis, T. J.** (2012, March). A framework to analyze faculty involvement in online teaching using UTAUT and Dewey's theory of experience. In P. Resta (Ed.),

- Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 505-510). Chesapeake, VA: AACE.
34. **Kidd, T., Davis, T., & Larke, P. (2012, March). The rhetoric of fear: Examining the construct of fear and computer anxiety as it relates to faculty engagement in online teaching. In *Society for Information Technology & Teacher Education International Conference* (Vol. 2012, No. 1, pp. 511-516).
 35. *Kulm, G., Brown, I. A., Lewis, C. W., Davis, T. J., An, S., & Anderson, L. (2011, October). Knowledge foundations for teaching algebra for equity. *Proceedings of the 33rd Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 182-189). Reno, NV.
 36. *Rangel-Chavez, A. F., Kulm, G., Davis, T. J., & Brown, I. A. (2011, October). Exploring middle school preservice teacher mathematical problem posing. *Proceedings of the 33rd Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1988). Reno, NV.
 37. *Davis, T., Cifuentes, L., Denton, J., Beason, L., & Columbus, Y. (2007). Online and field-based teacher preparation, mentoring and supervision: Effects and impacts on teaching candidate's professional readiness. *Proceedings of the Texas Computer Educators Association Research Symposium* (pp. 29-39). Austin, TX.
 38. Denton, J., Davis, T., Smith, B., Beason, L., & Strader, R. (2005). An online professional development model for pre-service teacher education. *Proceedings of e-Learn 2005 world conference on e-Learning in corporate, government, healthcare, & higher education* (pp. 617-624). Chesapeake, VA: Association for the Advancement of Computing in Education.
 39. *Denton, J., Davis, T., Smith, B., Strader, A., Clark, F., & Wang, L. (2005). Net generation college students as technology mentors for teacher educators. *Proceedings of the Society for Information Technology and Teacher Education, 16th International Conference* (pp. 3150-3154).
 40. *Denton, J., Davis, T., Strader, A., Durbin, B., & Wang, L. (2004). Has state and federal support changed technology infrastructure and professional development in Texas public schools. *Proceedings of ED-MEDIA 2004* (pp. 5242-5249).
 41. Cifuentes, L., Davis, T., Jolly, D., Klingelhofer, P., Metcalf, T. (1999). The model classroom: Helping educators envision the future. *Proceedings of the 6th Annual Distance Education Conference* (pp. 43-44). College Station: Texas A&M University, Center for Distance Learning Research. San Antonio, TX.
 42. Jolly, D., & Davis, T. (1998). A look at current practice and needs in teacher preparation. *Proceedings of the Telecommunications and Multimedia in Education Conference*.
 43. Cifuentes, L., Murphy, K. L., & Davis, T. (1998). Promoting self-esteem, achievement, and multicultural understanding through distance learning. *Proceedings of the Association of Educational Communications and Technology Conference*.
 44. Cifuentes, L., Murphy, K. L., & Davis, T. (1998). Cultural connections: Crossing international borders. *Proceedings for Global Learning in the 21st Century*, Copenhagen, Denmark.
 45. Cifuentes, L., Metcalf, T., Davis, T. & Gonzales, E. (1997). Cultural Connections: A multimedia distance learning project. *Proceedings of the Annual Distance Education Conferences* (pp. 33-35). Corpus Christi, TX.
 46. Cifuentes, L., Murphy, K. L., & Davis, T., Gonzales, E., & Edmundson, C. (1997). Cultural connections: A model for K-12 videoconferencing. *Proceedings of the Conference on Distance Teaching and Learning* (pp. 33-35). Madison, WI.

COMMISSIONED REPORTS

47. Davis, T., Denton, J., Strader, A., Sparks, K., Shin, J., Qi, S., Lee, Y., Waxman, H., & Stillisano, J. (2008). Evaluating districts' readiness for online testing: Results from a survey of Texas districts and campuses (Report No. 08-002). College Station, TX: State of Texas Education Research Center at Texas A&M University.
48. Stillisano, J., Waxman, H., Hostrup, J., Kandel-Cisco, B., & Davis, T. (2008). *Evaluating districts' readiness for online testing: Results from in-depth case studies of six Texas districts* (Report No. 08-001). College Station, TX: State of Texas Education Research Center at Texas A&M University.
49. Davis, T., Fuller, M., Jackson, S., Pittman, J., & Sweet, J. (2007). *A national consideration of digital equity report*. Washington, DC: International Society for Technology in Education.

BOOKS AND BOOK CHAPTERS

50. Davis, T. J., & *Hernandez-Valencia, M. (2021). Affordances of virtual worlds and virtual reality to support STEM project-based learning. In R. M. Capraro, M. M. Capraro, J. Young, & L. R. Barroso (Eds.), *Project-based learning: An integrated science, technology, engineering, mathematics (STEM) approach* (pp. 199-215). Sense.
51. Henderson, M., Henriksen, D., Carvalho, A., Cernochova, M., Creely, E., Dash, D., Davis, T., Mishra, P., Sointu, E., & Tosato, P. (2020). Report from TWG 3: Creativity for teachers and teaching. In P. Fisser & M. Phillips (Eds.), *International summit on ICT in education: Learners and learning contexts, new alignments for the digital age*.
52. Raven, S., Davis, T. J., & Craig, C. J. (2020). The mentor-mentee faculty relationship: Cases of reciprocal learning and leading. In C. J. Craig (Ed.), *Cross-disciplinary, cross-institutional collaboration in teacher education: Cases of learning and leading* (pp.83-95). Palgrave Macmillan.
53. *Hao, H., Kulm, G., & Davis, T. (2020). Self-reflection on engagement in virtual classrooms as the dual role: An Asian woman graduate student and middle-grade girl avatar in STEM. In B. Polnick, B. Irby, & J. Ballenger (Eds.), *Girls and women of color: Their journeys in higher education* (pp. 121-140). Information Age.
54. Davis, T., J., & South, J., & Stevens, K. D. (2018). Information and Communication Technology and Educational Policies in the United States of America and Canada. In J. Voogt, & G. Knezek, R. Christensen, & K. Lai (Eds.), *Second handbook of information technology in primary and secondary education* (pp. 1-22). Springer International Handbooks of Education. Springer.
55. *Davis, T. J., Phillips, G. A., & Kulm, G. (2018). Creativity and the design of music-mathematics activities in a virtual simulation learning environment. In V. Freiman & J. Tassell (Eds.), *Creativity and Technology in Mathematics Education* (pp. 181-202). Springer.
56. *Davis, T. J., & Ortiz, N. A. (2017). Technology and African American girls: We can be techies too. In P. J. Larke, G. Webb-Hasan, & J. Young (Eds.), *Cultivating achievement, respect, and empowerment (CARE) for African American girls in preK-12 settings: Implications for access, equity and achievement* (pp. 133-152). Information Age.
57. *Davis, T. J. & Hill, K. (2016). 21st century skills. In S. B. Mertens, M.M. Caskey & N. Flowers (Eds.), *Encyclopedia of middle grades education* (2nd ed.) (pp.416-418).
58. *Davis, T. J., Kulm, G., Oner, A. T., Indiogine, S. E. P., Goldsby, D., & Ma, T. (2015). Preservice teachers' problem solving lesson engagement and knowledge and beliefs about teaching for equity. In J. Hammer & Y. Li (Eds.), *Teaching at Work* (pp. 51-80). Sense.
59. Ganesh, T. G., Boriack, A. W., Stillisano, J. R., Davis, T.J., & Waxman, H. C. (Eds.). (2015). *Research on technology use in multicultural settings*. Information Age.
60. Kandel-Cisco, B., Stillisano, J R., Davis, T. J., & Waxman, H. C. (2015). Case studies of online testing in multicultural school districts. In T. G. Ganesh, A. W. Boriack, J. R.

Stillisano, T. J. Davis, & H. C. Waxman, H. (Eds.). Research on technology use in multicultural settings (pp. 107-119). Information Age.

61. Davis, T. J. (2014). Mathematics learning in virtual worlds: Affordances and accessibility. In C. R. Reynolds, K. J. Vannest, & E. Fletcher-Janzen (Eds.), *Encyclopedia of special education: A reference for the education of children, adolescents, and adults with disabilities and other exceptional individuals* (4th ed.), pp. 1630. John Wiley & Sons.
62. Davis, T. J. (2013). Using three-dimensional virtual environments to prepare STEM teachers. In M. M. Capraro, R. M. Capraro (Eds.), *Improving urban schools: equity and access in k-16 STEM education for ALL students* (pp. 125-141). Information Age.
63. Davis, T. J. (2013). Affordances of virtual worlds to support STEM project-based learning. In R. M. Capraro, M. M. Capraro, & J. Morgan (Eds.), *Project-based learning: An integrated science, technology, engineering, mathematics (STEM) approach* (pp. 71-77). Sense.

OTHER ARTICLES AND TECHNICAL REPORTS

64. Davis, T. (2007). A national consideration of digital equity. *Learning & Leading with Technology* 35(2), 48.
65. Davis, T. (2007). Making a difference: Three critical challenges. *Learning & Leading with Technology NECC Leader* 2, 2.
66. Denton, J.J., Davis, T.J., Smith, B.L., Beason, L., Graham, B.D., & Strader, R.A. (2006). *Success ratios for Accelerate Online/OPTIONS an online alternative certification program*. Retrieved from http://eeducation.tamu.edu/tech_studies/
67. Denton, J.J., Davis, T.J., Capraro, R.M., Smith, B.L., Beason, L., Graham, B.D., & Strader, R.A. (2006). *Examination of applicant profiles for admission into and completion of an online secondary teacher certification program*. Retrieved from http://eeducation.tamu.edu/tech_studies/
68. Roberts, K., Denton, J., Davis, T., Smith, B., Beason, L., & Graham, D. (2006). *Comparison of factor structure and conceptual structure of intern classroom assessment instrument*. Retrieved from http://eeducation.tamu.edu/tech_studies/
69. Denton, J., Davis, T., Strader, A., & Durbin, B. (Winter 2003). 2002 Texas public school technology survey. *Insight*, 17(3), 13-28.
70. Denton, J., Davis, T. & Strader, A. (Summer, 2001). 2000 public school technology survey. *Insight*, 15(2), 13-23.
71. Denton, J., Davis, T., Strader, A., Jessup, G., & Jolly, D. (Summer, 1999). The changing technology infrastructure in Texas public schools. *Insight*, 13(2), 34-38.

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72. Denton, J., Davis, T., Smith, B., Beason, L., Graham, D., & Strader, A. (2008). *Implementation benchmarks for assessing an alternative certification program*. College Station, TX: Texas A&M University, (ERIC Reproduction Number ED-500-523).
73. Denton, J., Davis, T. & Strader, A., & Durbin, B. (2002). *Report of the 2002 Texas Public School Technology Survey Prepared for the Telecommunications Infrastructure Fund Board and Texas Public Schools*. College Station, TX: Texas A&M University, (ERIC Reproduction Number ED-477-712).
74. Denton, J., Davis, T. & Strader, A., & Clark, F., & Jolly, D (2002). *Technology professional development of teacher education faculty by net generation mentors*. College Station, TX: Texas A&M University, (ERIC Reproduction Number ED-477-711).
75. Denton, J., Smith, B., Davis, T., Strader, A. & Clark, F. (2002). *Technology professional development enabled by an electronic management system*. College Station, TX: Texas A&M University, (ERIC Reproduction Number ED-464-617).

76. Denton, J., Davis, T. & Strader, A. (2001). *Report of the 2000 Texas public school technology survey prepared for the telecommunications infrastructure fund board and Texas public schools*. College Station, TX: Texas A&M University, (ERIC Reproduction Number ED-454-811).
 77. Denton, J., Davis, T., Strader, A., & Jessup, G. (1999). *Final report of the 1998 Texas public school technology Survey*. College Station, TX: Texas A&M University, (ERIC Reproduction Number ED-429-751).
- * Student co-author or co-presenter. **Student Dissertation Research

PRESENTATIONS

International/National Presentations (Refereed)

1. **Strader, M. & Davis, T. (2025). Virtual teachers' understanding of students' self-efficacious behaviors in digital learning environments. Paper accepted for presentation at the annual conference of the International Society for Technology in Education, San Antonio, TX.
2. **Adam, K. & Davis, T. (2025). *Teaching computing and IT in U.S. high school classrooms: A systematic scoping review*. Paper accepted for presentation at the annual meeting of the American Educational Research Association (AERA), Denver, CO.
3. **Adam, K. & Davis, T. (2025). *The unforeseen stories of two secondary information technology teachers: A narrative inquiry*. Paper accepted for presentation at the annual meeting of the American Educational Research Association (AERA), Denver, CO.
4. *Luna Arvizu, L. P., Carrillo, G. & Davis, T. J. (2024, July). *Exploring AI-generated content in interactive books using H5P*. Paper presented at the EdMedia Brussels 2024 Annual Conference, Brussels, Belgium.
5. *Luna Arvizu, L. P., & Davis, T. J. (2024, March). *Improving active learning using an interactive document tool and thinking routines*. Paper presented at the Society for Information Technology and Teacher Education International Annual Conference, Las Vegas, NV.
6. Banerjee, M., Davis, T., Waxman, H., & Banerjee, A. (2022, April). *STEM teachers' technology integration practices: A university-school partnership*. Paper presented at the annual meeting of the American Educational Research Association (AERA, School-University-Community Collaborative Research SIG).
7. Craig, C. J., McDonald, D. M., Auzenne-Curl, C. T., Curtis, G. A., Divol, K. A., Davis, T. J., Evans, P. K., Gauna, L. M., Kiekel, J. Manuel, M., McAlister-Shields, L., Newsum, J., Pohl, B. E., Turchi, L. B., Watson, S. W., Williams-Duncan, O. M., & Raven, S. (2021, April). *Meta-synthesis of work produced by a Faculty Academy*. Paper presented at the annual meeting of the American Educational Research Association (AERA, Division K).
8. *Park, S., de Miranda, M. A., Rambo-Hernandez, K. E., Wijekumar, K. K., Davis, T. J., & Huang, R. (2021, April). *The effectiveness of computer-based reading scaffolds on students' mathematics achievements in algebra among low-and-high-achieving readers*. Poster presented at the annual meeting of the American Educational Research Association (AERA, Division C).
9. Scragg, B., Davis, T., Norton, M., Mishra, P., & Anbar, A. (2021, October). *Designing the future of undergraduate STEM education: An inter-institutional and interdisciplinary approach*. Paper presented at the Society for Information Technology and Teacher Education International Annual Conference.
10. Anbar, A., Mishra, P., Davis, T. & Ragan, L. (2021, February). *The future of STEM education: A conversation with Ariel Anbar, Punya Mishra, and Trina Davis*. Presented at the annual meeting of the American Association for the Advancement of Science (AAAS).

11. *Davis, T. J., & Hernandez-Valencia, M. (2020). *A deeper dive: Designing the AR experience in the classroom*. Presented at the annual conference of the International Society for Technology in Education, Anaheim, CA [moved to virtual].
12. **Ortiz, N. A., & Davis, T. J. (2019, November). *Planning for equity: Analyzing the cultural relevance of pre-service teachers' lesson plans*. Paper presented at the forty-first annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), St. Louis, MO.
13. **Ortiz, N. A., & Davis, T. J. (2019, February). *Gladys's lesson plan: A culturally relevant exemplar*. Paper presented at the annual meeting of the Research Council on Mathematics Learning, Charlotte, NC.
14. Davis, T. (2018, June). *Explore + design = A dive in cybersecurity and engineering lessons*. Presented at the annual conference of the International Society for Technology in Education, Chicago, IL.
15. *Ortiz, N. A., & Davis, T. J. (2018, April). *Culturally relevant frameworks for Black mathematics students*. Paper presented at the annual meeting of the American Educational Research Association (AERA, Division K), New York, NY.
16. Davis, T. (2017, June). *Creativity and exploration of music-mathematics activities in a virtual simulation environment*. Paper presented at the annual conference of the International Society for Technology in Education, San Antonio, TX.
17. Herbst, P., Davis, T., Earnest, D., Amador, J., Milewski, A., Boileau, N., & Gursel, U. (2017). Technology-mediated practice-based teacher education: Designing, using, and researching digital environments for teacher learning. Paper presented at symposium at the annual meeting of the Association of Mathematics Teacher Educators.
18. Davis, T. J., Indiogine, S. E. P., & Kulm, G. (2016, October). *Examination of perceptual variable relationships from problem solving lessons in a Second Life simulation*. Paper presented at the annual conference of the School Science and Mathematics Association (SSMA), Phoenix, AZ.
19. **Tachia, G., Davis, T. J., & Larke, P. (2016, October). *Simulated virtual classroom teaching experiences: A case study of mathematics preservice teachers*. Paper presented at the annual conference of the School Science and Mathematics Association (SSMA), Phoenix, AZ.
20. Davis, T. J. & Kulm, G. (2016, June). *Perceptual variable relationships from problem solving lessons in a classroom simulation*. Paper presented at the annual conference of the International Society for Technology in Education, Denver, CO.
21. Davis, T. J., Indiogine, S. E. P., & Kulm, G. (2016, April). *Examination of mathematics instruction and virtual environment interaction in a simulated classroom in Second Life*. Paper presented at the annual meeting of the American Educational Research Association Conference, Washington, D. C.
22. Davis, T. J. & Indiogine, S. E. P., Kulm, G., (2016, April). *Examination of teaching efficacy and mathematics instruction in a virtual classroom environment*. Poster presented at the annual meeting of the National Council of Teachers of Mathematics Research Pre-session, San Francisco, CA.
23. Hao, H., Kulm, G., Phillips, G., Goldsby, D., & Davis, T. (2016, July). Using Second Life to prepare Pre-Service Teachers for Diverse Middle Grades Math Classrooms. Paper presented at the 2016 Conference on Research and Innovation in Teaching Mathematics with Technology, UW- La Crosse, WI.
24. Ortiz, N. A., & Davis, T. J. (2016, February). Examining preservice teachers' culturally relevant teaching. Paper presented at the annual meeting of the Research Council on Mathematics Learning (RCML), Orlando, FL.

25. Davis, T. (2015, June). *Problem solving lesson engagement in simulated middle school classroom in Second Life*. Paper presented at the annual conference of the International Society for Technology in Education, Philadelphia, PA.
26. *Davis, T., Kulm, G., Indiogine, S. E. P., Oner, T. & Ortiz, N. A. (2015, April). *Examination of virtual lesson engagement by preservice teachers in a Second Life classroom simulation*. Poster presented at the annual meeting of the American Educational Research Association, Chicago, IL.
27. *Davis, T., Kulm, G., Indiogine, S. E. P., Oner, T. & Phillips, G. A. (2015, April). *Preservice mathematics teachers' lesson engagement in a simulated classroom environment*. Poster presented at the annual meeting of the National Council of Teachers of Mathematics Research Pre-session, Boston, MA.
28. *Oner, A. T., Kulm, G., Davis, T. J., Ortiz, N. A. (2015, October). *How successful preservice teachers address their teaching experience*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Oklahoma City, OK.
29. *Ortiz, N. A., Davis, T. J., & Kulm, G. (2015, October). *The presence of equity inside a virtual simulation mathematics classroom*. Paper presented at the annual meeting of School Science and Mathematics Association (SSMA), Oklahoma City, OK.
30. *Oner, A. T., Indiogine, S. E. P., Kulm, G., *Ortiz, N., Davis, T., & *Hao, H. (2015, February). *The response of preservice teachers to algebraic misconceptions of students*. Paper presented at the annual meeting of Research Council on Mathematics Learning (RCML), Las Vegas, NV.
31. Davis, T. J., Indiogine S. E. P., *Oner, T. A., Phillips, G., & Kulm, G. (2014). *Examination of problem solving lessons presented in virtual classroom in Second Life*. Paper presented at the annual convention of the School Science and Mathematics Association, November 6-8, Jacksonville, FL.
32. Davis, T.J, Indiogine, S.E.P., Kulm, G., & *Oner, T. (2014, July). *Preservice teacher virtual classroom simulation engagement*. Paper presented at the annual conference of the International Society for Technology in Education, Atlanta, GA.
33. Larke, P., Webb-Johnson, G., Davis, T., & Williams, K. (2014, April). *Hiding in the shadows: African American and Latino females' achievement by race, class and gender*. Paper presented at the annual meeting of the American Educational Research Association Conference, Philadelphia, PA.
34. Phillips, G.A., Davis, T., & McKenzie, K.B. (2014, May). *I felt like I was there: Understanding "presence" IN instructional virtual environment*. Paper presented at the annual meeting of the International Congress of Qualitative Inquiry (ICQI), Champaign-Urbana, IL.
35. Davis, T., *Oner, T., Indiogine, S. E., Merchant, Z., *Rodriguez, J., & Kulm, G. (2013, November). In T. Davis (Chair), *Second life and diversity activities for pre-service teachers in a problem-solving course*. Symposium conducted at the School Science and Mathematics Association (SSMA) Conference, San Antonio, TX.
36. Merchant, Z., Kulm, G., Davis, T., Ma, T., & *Oner, T. (2013, October). *Blending second life with face-to-face instruction to build pre-service teachers' diversity awareness*. Paper presented at the Association for Educational Technology (AECT) Conference, Anaheim, CA.
37. Davis, T., Merchant, Z., & Kulm, G. (2013, June). *Preservice teacher perceptions, Second life algebra classroom simulations: SEM analysis*. Paper presented at the International Society for Technology in Education (ISTE) Conference, San Antonio, TX.
38. *Phillips, G., & Davis, T. J. (2013, June). *Unmasking millennials: Understanding the complexity of millennials' relationships with technology*. Paper presented at the International Society for Technology in Education (ISTE) Conference, San Antonio, TX.

39. Kulm, G., Davis, T., Allen, D., Lewis, C., McKenzie, K., *Anderson, L., *Hao, H., *Ma, T., Merchant, Z., *Oner, T., *Persky, J., & *Phillips, G. (2013, April). *Focus on diversity in preservice mathematics teachers' development*. Poster presented at the annual meeting of the National Council of Teachers of Mathematics Research Pre-session, Denver, CO.
40. *Davis, T., Brown, I., Kulm, G., Chien, C.F., & Phillips, G. (2012, June). *Virtual simulation teacher preparation approaches: Address equity in algebra learning*. Paper presented at the International Society for Technology in Education (ISTE) Conference, San Diego, CA.
41. Jobe, H., Padgett, H., Knezek, D., Davis, T., Schrum, L., Resta, P., & Norris, C. (2012, June). *Strategic ed tech thinking with ISTE presidents and business leaders*. Presented on panel at the International Society for Technology in Education (ISTE) Conference, San Diego, CA.
42. *Davis, T., Brown, I., Kulm, G., & Chien, C.F. (2012, March). *Knowledge for teaching algebra for equity: Preservice teachers' perceptions of classroom simulations and experiences in Second Life*. Paper presented at the Society for Information Technology and Teacher Education (SITE) Conference, Austin, TX.
43. *Kulm, G., Brown, I., Davis, T., Ma, T., & An, S. (2012, April). *Preservice teachers' knowledge for teaching algebra: A preliminary report*. Presented at the annual meeting of the National Council of Teachers of Mathematics Research Pre-session, Philadelphia, PA.
44. *Davis, T., Stillisano, J., Waxman, H., Kandel-Cisco, B., & Hostrup, J. (2011, April). *Statewide evaluation of districts readiness for large-scale online testing: Unique perceptions and challenges from various school district lenses*. Poster presented at annual meeting of the American Educational Research Association Conference, New Orleans, LA.
45. Padgett, H., Jobe, H., Davis, T., Knezek, D., Schrum, L., Norris, C., & Resta, P. (2011, June). *Strategic ed tech thinking with ISTE presidents and business leaders*. Presented on panel at the International Society for Technology in Education (ISTE) Conference, Philadelphia, PA.
46. *Larke, P., Kidd, T., & Davis, T. (2011, May). Exploring lived experiences of public health faculty who develop and teach online courses. Paper presented at the Seventh International Congress of Qualitative Inquiry. University of Illinois at Urbana-Champaign.
47. Davis, T., Knezek, D., Padgett, H., & Schrum, L., Norris, C., & Resta, P. (2010, June). *Strategic ed tech thinking with ISTE presidents and business leaders*. Presented on panel at the International Society for Technology in Education (ISTE) Conference, Denver, CO.
48. *Stillisano, J., Waxman, H., Kandel-Cisco, B., Hostrup, J., & Davis, T. (2010, January). *Case studies for six Texas school districts' capacity for online testing*. Paper presented at Hawaii International Conference on Education.
49. Stillisano, J., Davis, T., Waxman, H., Kandel-Cisco, B., & *Hostrup, J. (2009, November). *Using a mixed-methods design to conduct a statewide evaluation of districts readiness for large-scale online testing*. Paper presented at the American Evaluation Association Conference, Orlando, FL.
50. Davis, T., Padgett, H., Knezek, D., & Norris, C., & Resta, P. (2009, June). *Strategic ed tech thinking with ISTE presidents and business leaders*. Presented on panel at the National Educational Computing Conference, Washington, DC.
51. Davis, T., Padgett, H., & Imbriale, R. (2008, June). *The ABCs of advocacy: Make your voice heard*. Presented on panel at the National Educational Computing Conference, San Antonio, TX.
52. Harper, D., Davis, T., Garza, S., & Peet, M. (2008, June). *Bridging the digital divide in Texas*. Presented at the National Educational Computing Conference, San Antonio, TX.
53. Steinhaus, K., Davis, T., Knezek, D., Norris, C., Resta, P., Rogers, H., Williams, C., & Van Dam, J. (2008, June). *Strategic ed tech thinking with ISTE presidents and business leaders*. Presented on panel at the National Educational Computing Conference, San Antonio, TX.

54. Denton, J., Davis, T., Smith, B., Beason, L., Graham, D., & Capraro, R. (2007, April). *Candidate profiles into and completion of an online secondary teacher certification program*. Paper presented at annual meeting of the American Educational Research Association, Chicago, IL.
55. Denton, J., Smith, B., Davis, T., Beason, L., & Graham, D. (2007, March). *In search of a successful marketing strategy for an online teacher certification program*. Poster presented at the Society for Information Technology & Teacher Education, San Antonio, TX.
56. Denton, J., Davis, T., Smith, B., Beason, L., Graham, D., & Strader, R. A. (2006, October). *Third year evaluation of accelerate online/options: A transition to teach program at Texas A&M University*. Paper presented at the 11th Annual World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education. Honolulu, HI.
57. Denton, J., Davis, T., Smith, B., Beason, L., & Strader, A (2005, October). *An online professional development model for pre-service teacher education*. Paper presented at the 10th annual World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education. Vancouver BC, Canada.
58. Denton, J., Davis, T., Smith, B., Strader, R., & Clark, F. (2005, March). *Net generation college students as technology mentors for teacher educators*. Paper presented at the Society for Information Technology & Teacher Education, 16th International Conference. Phoenix, AZ.
59. *Denton, J. Davis, T., Strader, A., Durbin, B. & Wang, L. (2004, June). *Has state and federal support changed technology infrastructure and professional development in Texas public schools*. Paper presented at the ED-MEDIA 2004 Conference. Lugano, Switzerland.
60. Cifuentes, L., Murphy, K. L., & Davis, T. (1998, February). *Promoting self-esteem, achievement, and multicultural understanding through distance learning*. Paper presented at the Association of Educational Communications and Technology Conference, St. Louis, MO.
61. Cifuentes, L., Murphy, K. L., & Davis, T., Gonzales, E., & Edmundson, C. (1997, August). *Cultural connections: A model for K-12 videoconferencing*. Paper presented at the Conference on Distance Teaching and Learning, Madison, WI.
62. Cifuentes, L., Clark, S., & Davis, T. (1996, April). *From sages to guides: Using technology to promote professional development*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Multi-State Regional Presentations (Refereed)

63. *Ortiz, N. A., & Davis, T. J. (2016, February). A review of culturally relevant pedagogy in the virtual mathematics classroom literature: Implications for large scale incorporation. Paper presented at the annual meeting of the Southwest Educational Research Association (SERA), New Orleans, LA.
64. *Hao, H., Oner, A. T., Indiogine, S. E., Ortiz, N. A., Kulm, G., & Davis, T. (2015, February). *Examining preservice teachers' content knowledge in a virtual classroom environment*. Paper presented at the annual meeting of Southwest Educational Research Association (SERA), San Antonio, TX.
65. Oner, A. T., Kulm, G., & Davis, T. (2014, February). *A review of pre-service teachers' teaching analysis gained in a virtual environment*. Paper presented at the annual meeting of Southwest Educational Research Association (SERA), New Orleans, LA.
66. Denton, J., Davis, T., Smith, B., Beason, L., Graham, D., & Roberts, K. (2007, February). *Candidate profiles for admission into and completion of an online*

- secondary teacher certification program*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, Texas.
67. Denton, J., Davis, T., Smith, B., Beason, L., & Strader, A. (2005, September). *An online professional development model for pre-service teacher education*. Paper presented at the 1st Annual Conference of CREATE, San Antonio, TX.
 68. Denton, J. Davis, T., Smith, B., Beason, L., & Strader, A. (2005, February). *The development and implementation of a professional development model for pre-service teacher education*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
 69. Denton, J. Davis, T., Strader, A., Durbin, B., & Wang, L. (2004, February). *Technology infrastructure and professional development in Texas public schools*. Paper presented at the annual meeting of the Southwest Educational Research Association, Dallas, TX.
 70. Denton, J. Davis, T., Smith, B., Beason, L., & Wang, L. (2004, February). *Does an on-line alternative certification program attract candidates with strong academic credentials?* Paper presented at the annual meeting of the Southwest Educational Research Association, Dallas, TX.
 71. Denton, J., Davis, T., Strader, A., Clark, F. & Jolly, D. (2003). *Technology professional development of teacher education faculty by net generation mentors*. Paper presented at the annual meeting of the Southwest Educational Research Association. San Antonio, TX.
 72. Denton, J., Smith, B., Davis, T., Strader, A., Clark, F. & Jolly, D. (2002, February). *The technology mentor fellowship program [TMFP]*. Paper presented at the annual meeting of the Southwest Educational Research Association, Austin, TX.
 73. Denton, J., Davis, T., Strader, A., Jolly, D., & Jessup, G. (2000, January). *Instructional technology infrastructure and staff development in Texas schools and in teacher education programs of institutions of higher education*. Paper presented at the annual meeting of the Southwest Educational Research Association, Dallas, TX.
 74. Davis, T. (1999). *Evaluating the use of technology to improve teaching and learning*. Presented on expert panel at the U.S. Department of Education, Improving America's Schools Regional Conference, Education Reform Institute, St. Louis, MO.
 75. Davis, T. (1996). *Technology integration at H.T. Jones Intermediate School*. Presented at the U. S. Department of Education, Improving America's Schools Conference, St Louis, MO.

State Presentations (Refereed)

76. Davis, T., & Reimers, P. (2017). *Refreshing the ISTE standards for teachers*. Presented at the annual meeting of the Texas Computer Education Association Conference. Austin, Texas.
77. Davis, T. J., Brown, I. A., Lewis, C. W., & Kulm, G. (2011). *Knowledge for algebra teaching for equity (KATE) project: Virtual simulation teacher preparation strategies to address equity in algebra learning*. Paper presented at the Texas National Association for Multicultural Education Conference, Mesquite, TX.
78. Davis, T., Cifuentes, L., Denton, J., Beason, L., & Columbus, Y. (2007, February). *Online and field-based teacher preparation, mentoring and supervision: Effects and impacts on teaching candidate's professional readiness*. Paper presented at the

Research Symposium of the Texas Computer Education Association Conference. Austin, Texas.

79. *Cifuentes, L., Metcalf, T., Clark, J., Davis, T., & Clark, S. (1996, January). *Personal growth through multimedia development*. Paper presented at the Third Annual Distance Education Conference, Dallas, TX.
80. Cifuentes, L., Metcalf, T., Murphy, K. L., Gonzales, E., & Davis, T. (1996, November). *Connecting adolescents via telecommunications*. Paper presented at the 45th Annual Texas Educational Technology Conference, Austin, TX.

Invited Addresses/Keynotes/Presentations – National Conferences

81. Davis, T. (2016, May). *Learning and teaching in the next generation digital learning environment (NGDLE) from a K-20 & teacher education lens*. Invited Lightning Keynote at the annual meeting of IMS Global Learning Impact Leadership Institute, San Antonio, TX.
82. Davis T. (2009, June). *Shattering expectations and inspiring adventure in the classroom*. Invited address at Verizon Foundation Corporate Spotlight Session, National Educational Computing Conference, Washington DC.
83. Davis T. (2009, June). *Successes against all odds*. Invited address at the Digital Equity Summit, National Educational Computing Conference, Washington DC.
84. Davis T. (2008, June). *Convene, connect, transform: Dream BIG!* Invited president's address at the National Educational Computing Conference, San Antonio, TX.
85. Davis T. (2008, June). *Facing national and international challenges: Bridging the gap*. Invited speaker at the Digital Equity Summit, National Educational Computing Conference, San Antonio, TX.
86. Davis T. (2008, June). *Learning and leading*. Invited speaker at the ISTE Leadership Symposium, National Educational Computing Conference, San Antonio, TX.
87. Davis T. (2007, June). *Making a difference: Three critical challenges in educational technology*. Invited president's address at the National Educational Computing Conference, Atlanta, GA.
88. Davis T. (2007, June). *Web 2.0*. Invited speaker at the ISTE Leadership Symposium, National Educational Computing Conference, Atlanta, GA.
89. Davis T. (2007, March). *A need for online resources that support 21st century learners*. Invited keynote at Verizon Foundation, National Thinkfinity.org Launch. Washington DC.
90. Davis T. (2005, June). *Sustaining digital parity for economic inclusion*. Invited presentation at the Mayor of Philadelphia's Digital Leadership Caucus held in conjunction with the National Education Computing Conference. Philadelphia, PA.

Other National Presentations

91. Anbar, A., Mishra, P., Davis, T., Manduca, C., Pfirman, S., Ragan, L., & Scragg, B. (2020, October). *Future Substance of STEM Education*. STEM Futures Virtual Conference. Arizona State University.
92. Kulm, G. & Davis, T. J. (2015, May). *Learning to teach math for diversity*. Online presentation at the NSF 2015 Teaching & Learning Video Showcase: Improving science, math, engineering, and computer science education.

93. Davis T. (2007, June). *Engaging and empowering 21st century learners*. Presented at the Digital Equity Summit held at the National Educational Computing Conference, Atlanta, GA.
94. Davis T. (2006, June). *The digital divide critical dimensions and solutions*. Presented at the Digital Equity Summit held at the National Educational Computing Conference, San Diego, CA.
95. Davis, T., & Denton, J. (2004, December). *Supervision, authentic assessment, and support: Online learning communities that work*. Presented at the U.S. Department of Education, Transition to Teaching Project Directors' Meeting, Crystal City, VA.
96. Davis, T. (2004, June). *Making the case for making the case for educational technology*. Presented at the International Society for Technology in Education (ISTE) Leadership Symposium, National Educational Computing Conference, New Orleans, LA.
97. Davis, T. (2004, June). *Making the case for making the case for educational technology*. Presented at the International Society for Technology in Education (ISTE) Leadership Symposium, National Educational Computing Conference, New Orleans, LA.
98. Denton, J., Davis, T., Smith, B., & Clark, F. (2002, July). *On-Line alternative certification program for secondary science teachers*. Paper presented at the U.S. Department of Education, Preparing Tomorrow's Teachers to Use Technology (PT3) Annual Meeting, Washington, D.C.
99. Davis, T., Strader, A., Clark, F., & Denton, J. (2002, July). *The eEmpowerment zone portal: Resources and strategies that support field-based education*. Presentation at the U.S. Department of Education, Preparing Tomorrow's Teachers to Use Technology (PT3) Annual Meeting, Washington, D.C.
100. Davis, T. (2002, June). *Increasing digital literacy skills in communities of color through strong leadership*. Presented at the International Society for Technology in Education (ISTE) Minority Leadership Symposium. National Educational Computing Conference, San Antonio, TX.
101. Davis, T. & Denton, J. (2001, August). *eEmpowerment Zone: On-line learning system*. Preparing Tomorrow's Teachers to Use Technology (PT3) Annual Meeting, Washington DC.
102. Davis, T. (2001, June). *Mapping the digital divide*. International Society for Technology in Education (ISTE) Minority Leadership Symposium, Planning Committee. National Educational Computing Conference, Chicago, IL.

Invited Keynotes/Presentations – State Conferences

103. Davis T. (2012, February). *Create, collaborate, innovate: STEAM learning in 3D immersive virtual environments*. Invited keynote at the Alaska Society for Technology in Education (ASTE) Conference, Anchorage, AL.
104. Davis, T. (2011, September). *Encouraging African American and Hispanic girls to seek STEM careers*. Invited Keynote, Cultivating Hispanics and African Americans' Reading, Math, and Science (CHARMS) Conference. Texas A&M University.
105. Davis T. (2009, February). Invited Presentation, Texas Computer Educator's Association Conference, Past Presidents Luncheon. Austin, TX.

106. Davis T. (2008, February). *Learning and leading in a digital world: NETS-S, NETS-T and more*. Invited keynote at the Alaska Society for Technology in Education (ASTE) Conference, Anchorage, AL.
107. Davis T. (2007, February). Invited Presentation, Texas Computer Educator's Association Research Symposium. Austin, TX.

Other State Presentations

108. Davis, T. & Shepperson, J. (2003, February). *Texas STaR Chart, tool for assessing school technology and readiness*. Presented at the Texas Computer Education Association (TCEA) State Conference, Austin, TX.
109. Denton, J., Davis, T., & Strader, A. (2001). *Preliminary report of the 2000 Texas public school technology survey*. Presented at Telecommunications and Infrastructure Fund Board (TIFB), Austin, TX, March, 2001.
110. Davis, T. (1999, February). *SCR*TEC says Y2K (yes 2 kids) and SCR*TEC presents: Creating web enhanced instruction*. Presented at the Nineteenth Annual Texas Computer Education Association State Conference, Austin, TX.
111. Davis, T. (1999, February). *SCR*TEC Intensive '98 projects and Intensive '99 opportunities*. Presented at the Nineteenth Annual Texas Computer Education Association State Conference, Austin, TX.
112. Davis, T. & Jolly, D., (1998, February). *SCR*TEC resources, tools and professional development model*. Presented at the Texas Center for Educational Technology Conference, Austin, TX.

University Presentations

1. Davis, T. & Indiogine, S. E. P. (2017, March). *Virtual mathematics classroom simulations: Examination of engagement and equity awareness*. Poster presented at the Women's Research on Women Symposium, Texas A&M University.
2. Ortiz, N. A., & Davis, T. J. (2016, March). *The non-colorblind approach to mathematics learning: A review of culturally relevant pedagogy*. Poster presented at the annual meeting of the Climate Matters Conference, Texas A&M University.
3. Davis, T., *Oner, T., *Ortiz, N. A. & *Hao, H. (2015, March). *Preservice teachers' problem-solving lesson engagement and teaching for equity*. Poster presented at the Climate Matter Conference: A Dialogue in Climate, Inclusion, and Respect, Texas A&M University.
4. *Phillips, G. A., Davis, T., & Kulm, G. (2013, March). *Teaching teachers to teach with technology*. Presented at Teaching with Technology Conference, Texas A&M University.
5. *Carpenter, B. S., & Davis, T., Merchant, Z., & Mohammed, M. (2009, March). *Exploring educational possibilities in virtual worlds: Teaching digital humanities and visual culture in Second Life*. Presented at Teaching with Technology Conference, Texas A&M University.

Invited Lectures/Presentations – University

6. Davis, T. J. (2020, September). *Equity and digital equity perspectives*. Presented at Center for Education through Exploration, Arizona State University.

7. Davis, T. (2017, October). *Emerging technology directions in the U.S. and STEAM learning*. Invited presentation to Chinese teacher delegation, Texas A&M University.
8. Davis, T. (2017, October). *STEM/ STEAM classroom strategies and resources for secondary teachers*. Invited presentation to China teacher delegation, Texas A&M University.
9. Davis, T. (2016, September). *Emerging technology directions in the U.S. and STEAM learning*. Invited presentation to China teacher delegation, Texas A&M University.
10. Davis, T. (2010, December). *Curriculum and instruction, mathematics and equity: Highlighting research and instructional projects in Second Life*. Invited presentation at African American Professional Organization Lecture Series, Texas A&M University.
11. Davis, T. (2010, November). *Highlighting research and instructional projects in Second Life*. Invited Presentation at the College of Education and Human Development, Advisory Council Meeting.
12. Carpenter, B. S., & Davis, T. (2009, November). *Digital humanities in the Metaverse: A report on the design, implementation, and the future of Glasscock Island*. Presented at Evans-Glasscock Fellow Lecture, Texas A&M University.
13. Davis, T. (2009, June). *ISTE's National educational technology standards*. Invited Speaker at Online Executive EdD Program Summer Experience 2009, Texas A&M University.
14. Davis, T. (2009, May). *A statewide evaluation of districts' readiness for online testing*. Invited Speaker at TLAC Graduate Student Organization Meeting, Texas A&M University.
15. Davis, T. (2008, November). *Refreshing the focus: National educational technology standards (NETS) 2.0 & more*. Invited Speaker at the State Of Texas Education Research Center Seminar Series, Texas A&M University.
16. Davis, T. (2009). Invited Speaker at the Disciplinary Knowledge and Research in Curriculum and Instruction Course with Dr. Patricia Larke, Texas A&M University.
17. Davis, T. (2007, March). Relationship of educator preparation and development technology level of progress to two school district demographic variables. Invited Speaker at Department of Communication Colloquium, Texas A&M University.
18. Davis, T. (2006). *Relationship of educator preparation and development technology level of progress to two school district demographic variables*. Presented at Seminar in Science Education, Department of Teaching, Learning, and Culture, Texas A&M University.
19. Davis T. (2005). *Promising online resources for technology rich instruction*. Invited Speaker at Phi Delta Kappa, Fall Meeting. Texas A&M University. College Station, TX.
20. Davis T. (2005). *Online resources for bilingual educators*. Invited Speaker at Bilingual Education Student Organization Meeting. Texas A&M University. College Station, TX.
21. Davis, T. (2000). *Developing web-based science lessons using TrackStar*. Presented at Partnership for Environmental Education and Rural Health (PEER) Intensive 2000, Texas A&M University.

Select Invited Lectures/Presentations – Public School

22. Davis, T. (2014, August). *Technology integration: An evolution of the learning landscape*. Invited Presentation at Bang Elementary School, Cypress Fairbanks ISD.
23. Davis, T. (2010, August). *Unpacking the national educational technology standards (NETS)*. Invited Presentation to Sitka School District E2T2 Wave Grant Leadership Team, Alaska Second Life Island.
24. Davis, T. (2010, January). Exploring instructional possibilities in Second Life: Opportunities for increased professional engagement in an immersive learning community. Invited Presentation to Anchorage School District Grant Leadership Team, Anchorage Alaska Second Life Island.
25. Davis, T. (1997). Best practices in distance learning at a Texas middle school. Invited Speaker at the Kentucky Educational Technology Conference. Scott County, KY.

SPECIAL PROJECTS AND INSTRUCTIONAL DEVELOPMENT

27. Interdisciplinary Faculty Group (2009). Developed *Institute for Digital Humanities and Media White Paper*. Proposal selected as one of the Texas A&M University landmark areas; created by a university-wide interdisciplinary team of scholars.
28. Davis, T. (2007-2008). Designed prototype for online instructional modules for the Verizon Early Literacy Program along with design team, Texas A&M University.
29. Erwin, B., & Davis, T., McTigue, E. (2007-2008). Designed and co-developed four online reading modules for the Verizon Early Literacy Program, Texas A&M University.
30. Davis, T. (2006). Designed prototype for online instructional modules for the Verizon ESL Literacy Program, Understanding Culture through Folk Tales. Texas A&M University.
31. Erwin, B., & Davis, T. (2006). Designed and co-developed four online instructional modules for the Verizon ESL Literacy Program, Texas A&M University.
32. Davis, T. (2003). Designed prototype for online instructional modules for the Accelerate Online secondary teacher certification program, Texas A&M University.
33. Davis, T. (2003). Designed and developed the *Online Resource Applications* module for the Accelerate Online secondary teacher certification program, Texas A&M University.
34. Davis, T. (2003). Designed and developed the *eCommunication Tools and Applications* module for the Accelerate Online secondary teacher certification program, Texas A&M University.
35. Davis, T., & Spencer, K. (2003). Designed and developed the *TrackStar I: Finding Online Lessons* module for the Accelerate Online secondary teacher certification program, Texas A&M University.
36. Davis, T., & Spencer, K. (2003). Designed and developed the *TrackStar II: Preplanning an Online Lesson* module for the Accelerate Online secondary teacher certification program, Texas A&M University.
37. Davis, T., & Spencer, K. (2003). Designed and developed the *TrackStar III: Developing an Online Lesson* module for the Accelerate Online secondary teacher certification program, Texas A&M University.

38. Davis, T., Jessup, G. & Spencer, K. (2000). Designed and developed *Choosing Science eClips* video library and *Developments in Science Resource* for middle school learners. National Space Biomedical Research Institute, Texas A&M University.
39. Davis, T., & Spencer, K. (2000). Designed and developed the *Web Design I: Developing an Online Portfolio* module for the Technology Mentor Fellowship Program, Texas A&M University.
40. Davis, T., & Spencer, K. (2000). Designed and developed the *Web Graphics I* online module for the Technology Mentor Fellowship Program, Texas A&M University.
41. Davis, T., & Spencer, K. (2000). Designed and developed the *Web Graphics II* online module for the Technology Mentor Fellowship Program, Texas A&M University.
42. Davis, T. (2000). Designed and developed the *Web Graphics III* online module for the Technology Mentor Fellowship Program, Texas A&M University.
43. Denton, J., Davis, T. & Georgis, G. (2000). Designed prototype and developed space-related science online modules, *Energy: It's Everywhere*, *EM Radiation in Everyday Life*, and *Radiation: Where Does It Come From?* for middle school learners. National Space Biomedical Research Institute, Texas A&M University.
44. Davis, T. & Spencer, K. (1999-2000). Designed prototype for earth science online modules for middle school learners. Ocean Drilling Distance Learning Program Development, Texas A&M University.
45. Hunter, J., Davis, T., Spencer, K., & PEER Development Team (1999-2002). Designed prototype and co-developed environmental health science (Water Quality) online modules for middle school learners. Partnership for Environmental Education and Rural Health, Texas A&M University.
46. Klemm, W., Davis, T., Spencer, K., & PEER Development Team. (1999-2002). Designed prototype and co-developed environmental health science (Cell Biology) online modules for middle school learners. Partnership for Environmental Education and Rural Health, Texas A&M University.

NON-PRINT MEDIA (Significant Educational Design Product)

- Davis, T.J. (2010-2020). *KATE 3D Classroom and Virtual Learning Spaces*. Developed interactive virtual classroom and learning spaces, and programmed bot system in *Second Life* for research and instruction in mathematics, problem solving, and teaching/learning. (<http://slurl.com/secondlife/Glasscock/109/97/30>).
- Carpenter, B.S., & Davis, T.J. (2008). *Glasscock Island*. Developed island in virtual environment of *Second Life* for research and instruction in digital humanities, visual culture, and teaching/learning strategies (<http://slurl.com/secondlife/Glasscock/109/97/30>).
- *Software Tool for eLearning Environment*
- Davis, T.J., & Strader, R.A. eEmpowerment Zone and Integrated ePortfolio System (Learning Management System). Primary delivery system for the *Accelerate Online* teacher certification program. <http://empowermentzone.tamu.edu> (Inactive)
<http://empowermentzone.tamu.edu/portfolios/center>

Courses Developed/Taught

EDCI 365	Technology in Classrooms
EDCI 689	Methods and Models for Evaluating Educational Materials and Programs
EDCI 702	Elementary Mathematics Instructional Strategies and STEM Learning
EDCI 676	Evaluation and Implementation of Electronic [Digital] Learning Materials

EDCI 675	Teaching Strategies: Patterns of Learning
EDCI 603	Professional Development Strategies for Teachers
EDCI 644	Curriculum Development
EDCI 619	Teaching and Learning Number and Quantity Concepts
EDCI 622	Theories of Learning and Teaching Mathematics (Taught Spring 2015)
EDCI 602	Cultural Foundations in Education

EDITORIAL, JOURNAL & GRANT REVIEWING [Select]

Reviewer, Education Sciences Journal, 2021, 2022
Reviewer, Journal for Research in Mathematics Education (Top-tier), 2021
Team Application Reviewer, STEM Futures Virtual Conference, Arizona State University, September 2020 (NSF Supported).
Editorial Board, Empowered Learner, 2017 – 2019.
Reviewer, Teaching and Teacher Education Journal (Top-tier), 2019, 2020.
Research Paper Reviewer, North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA) Conference, 2019.
Reviewer, Computers & Education Journal (Top-tier), 2014, 2016, 2019, 2020.
Reviewer, School Science and Mathematics Journal, 2016
Research Paper Reviewer, International Society for Technology in Education (ISTE) Conference, 2015, 2016.
Associate Editor, School Science and Mathematics Journal 2007-2011.
Online Learning Advisory Committee, U.S. Department of Education, 2006.
Proposal Reviewer, National Science Foundation, Advanced Technological Education Grant Competition, 2005.
United States Department of Education – Challenge Grant Evaluation Team, 1995.

SERVICE

National/International [Select]

ISTE Coalition, Educator Preparation Programs (EPPs) for Digital Transformation, Faculty Champion, 2024 – Present.
ISTE Standards Advisory Committee, International Society for Technology in Education (ISTE), 2023 – Present.
Presidents Council, International Society for Technology in Education (ISTE), 2007 – Present.
Steering Committee, STEM Futures Virtual Conference, Arizona State University, September, October, 2020 (NSF Supported).
Editorial Board, Empowered Learner, 2017 – July 2019.
Equity and Diversity Advisory Group, International Society for Technology in Education (ISTE), 2017 - 2018.
Core Leadership Team, Equity and Diversity Advisory Group, International Society for Technology in Education (ISTE), 2017 - 2018.
Co-Chair, Digital Equity Ad Hoc Advisory Group Meeting (2016), International Society for Technology in Education (ISTE) Conference, Denver, CO, June 2016.
ISTE Standards for Educators, Technical Working Group, International Society for Technology in Education (ISTE), Washington, D.C. July 2016 – 2017.
ISTE Standards for Educators, Stakeholder Advisory Council, International Society for Technology in Education (ISTE), Denver, CO, 2016.
Judge, IMS Global Learning Impact Awards, IMS Global Leadership Institute & Conference, San Antonio, TX, 2016.
Reviewer, Computers & Education Journal (Top-tier), 2016, 2019

Research Paper Reviewer (2015), for International Society for Technology in Education (ISTE) Conference, Denver, CO, June 2016.

Presidents Council, International Society for Technology in Education (ISTE), 2010 – Present

Research Paper Presider, International Society for Technology in Education (ISTE) Conference, San Antonio, TX, June 2013.

Program Committee, Society for Technology in Teacher Education (SITE) 2012 Conference, 2011-2012

Past President, International Society for Technology in Education (ISTE), 2009-2010.

President, International Society for Technology in Education (ISTE), 2007-2009.

Associate Editor, School Science and Mathematics Journal 2007-2011.

President-Elect, International Society for Technology in Education (ISTE), 2006-2007.

Treasurer, International Society for Technology in Education (ISTE), 2005-2006.

Online Learning Advisory Committee, U.S. Department of Education, 2006.

Proposal Reviewer, National Science Foundation, Advanced Technological Education Grant Competition, 2005.

Treasurer, International Society for Technology in Education (ISTE), 2004-2006.

Chair or Co-Chair, ISTE Board Committees (President's Council 2007-2009, Finance Committee 2004-2006, Nominations and Appointments Committee 2006 and 2009, Policy and Procedures Committee 2003 and 2004).

Co-Chair, National Education Computing Conference, ISTE Digital Equity Summit, 2007.

Steering Committee, National Education Computing Conference, ISTE Digital Equity Summit, 2006.

Co-Chair, National Education Computing Conference, ISTE Leadership Symposium, 2004.

Co-Chair, National Education Computing Conference, Minority Leadership Symposium, 2002.

Steering Committee, National Education Computing Conference, Minority Leadership Symposium, 2001.

United States Department of Education – Challenge Grant Evaluation Team 1995.

State [Select]

Texas Computer Education Association (TCEA) and ISTE Meeting, ISTE Standards in State Bill (1839), Preservice/Educator Preparation Programs Discussion, August 2017.

Appointment to the Texas Education Agency, Educational Technology Advisory Committee, 2005-2008.

Appointed Co-Chair to the Texas Education Agency, Educational Technology Advisory Committee, 2001-2003.

Master Technology Teacher Standards Development Committee, State Board of Educator Certification (SBEC), 2001.

Texas A&M University – Service [Select]

University

Innovative Teaching Fellows Advisory Committee, 2024 – Present.

Academy of Future Faculty (AFF) Mentor, Center for Teaching Excellence (CTE), 2022 (Mentee: Adriana Jimenez)

IT Governance Appointment, Transformational Learning Technologies Committee, 2017-2019.

Faculty Ombuds Officer Search Committee Member, 2017-2018.

Pedagogy Project Forum: Supporting Transformational Learning. Invited Panelist, Texas A&M University, November 2016.

Association of Former Students Distinguished Achievement Awards Selection Committee (Research), 2014.

Invited Member of the Center for Teaching Excellence (CTE) Faculty and Student Advisory Board (2013-2015).

AAU STEM Planning Meeting with the Provost, 2013.

Honors Program Executive Director, Search Committee, 2010.

Center for Teaching Excellence, Portal Committee, 2009-2012.

Panel Presentation, New Faculty Orientation, Fall, 2007.

Panel Discussion, *Mathematics Teaching Options*. Mathematics Career Fair, Fall 2005.

College of Education and Human Development/TLAC Department

Academic Program Chair, STEM Education, Department of Teaching, Learning, and Culture, 2024 – Present.

Member, Evaluation (A1) Committee, Department of Teaching, Learning, and Culture, 2024 – Present.

Directed Learning Design & Technology PhD Program Redesign, Department of Teaching, Learning, and Culture, 2024 – 2025.

Member, Periodic/Post Tenure Review Committee, Department of Teaching, Learning, and Culture, 2024.

Co-Chair Search Committee, Assistant/Associate/Full Professor Mathematics Education Position, Department of Teaching, Learning, and Culture, 2023-2024.

Co-Planner, Leveraging Digital Learning Tools: Technology in Classrooms Showcase, Texas A&M University, Department of Teaching, Learning, and Culture, 2023-Present

Search Committee, Assistant Professor Technology and Teacher Education Position, Department of Teaching, Learning, and Culture, 2022-23

Learning, Design and Technology Group, School of Education and Human Development (SEHD), 2022-Present

Steering Committee, Collaborative for Innovation in Teacher Education, Department of Teaching, Learning, and Culture, 2021-Present

Executive Committee, Department of Teaching, Learning, and Culture, 2021-22.

Chair Search Committee, Assistant Clinical Professor Technology and Teacher Education Position, Department of Teaching, Learning, and Culture, 2019-2020.

Search Committee, Assistant/Associate Professor Multicultural/Teacher Education Position, Department of Teaching, Learning, and Culture, 2018-2019.

Member, Council of Principal Investigators (CPI), College of Education and Human Development, 2017-2020.

Search Committee, Associate Deans for Faculty Affairs, and Academic Affairs Position, College of Education and Human Development, 2017.

Academic Program Chair, Teacher Education, Technology, and Curriculum and Instruction, Department of Teaching, Learning, and Culture, 2017- 2018.

Executive Committee, Department of Teaching, Learning, and Culture, 2017-18.

Executive Committee, Department of Teaching, Learning, and Culture, 2016-17.

Search Committee Chair, Visiting Assistant Professor in Teacher Education/Culture and Curriculum, Department of Teaching, Learning, and Culture, 2016-17.

Technology Working Group, College of Education and Human Development (CEHD), 2016-17. Department of Teaching, Learning, and Culture, Evaluation Committee, 2016.

Search Committee Member, TLAC Department Head, September 2015 – 2016.

Department of Teaching, Learning, and Culture, Evaluation Committee, 2015.

Graduate Committee Member, Mathematics Education, 2015.

Department of Teaching, Learning, and Culture, Evaluation Committee, 2014.

TLAC Technology Conference Co-Chair, 2014, 2015.

Search Committee Member, Faculty Position in Cyber STEM Education, 2014 – 2015.

CEHD Committee on Diversity Member, 2012 – 2015.
 Department of Teaching, Learning, and Culture, Climate Committee Member, 2013 – 2015.
 TLAC Technology Conference Co-Chair, 2013 – 2014.
 Search Committee Member, Associate Professor of Urban Education, 2011-2013.
 Executive EdD Program, Steering Committee, 2008-2009.
 Committee for Online Learning and Evaluation (COLE), 2008-2009.
 Department of Teaching, Learning, and Culture, Evaluation Committee, 2008.
 Educational Research Exchange, Faculty and Student Poster Judge, 2007.
 Search Committee Member, Assistant Professor of Mathematics Education, 2007.
 Executive EdD Program – Course Framework Planning Committee, 2007-2008.
 Executive EdD Program, Program Development – Completed course revisions for EDCI 689/676;
 Evaluation and Implementation of Electronic Learning Materials; and EDCI 689/603
 Professional Development Strategies for Teachers, August 2007.
 Educational Research Exchange, Proposal Reviewer. December 2006.
 Education Research Exchange, Faculty and Student Poster Judge, January 2006.

School District (Select)

Curriculum Design Professional Development, *SECURE: Secure Teacher Education on Cybersecurity by Utilizing Research Experiences*, 2017, 2018, 2019
 Invited Presentation at Bang Elementary School, Cypress Fairbanks ISD. *Technology integration: An evolution of the learning landscape*, 2014.
 Mathematics Program Reviewer – Sitka Alaska School District, 2011.
 Invited Presentation to Anchorage School District Grant Leadership Team, Anchorage Alaska
 Second Life Island. *Exploring instructional possibilities in Second Life: Opportunities for increased professional engagement in an immersive learning community*, 2010.

Professional Membership (Past and Current)

International Society for Technology in Education (ISTE)
 American Educational Research Association (AERA)
 Society for Information Technology in Teacher Education (SITE)
 Association of Educational Communications and Technology (AECT)
 National Council for Teachers of Mathematics (NCTM)
 Association of Mathematics Teacher Educators (AMTE)
 School Science and Mathematics Association (SSMA)
 Texas Computer Educators Association (TCEA)

CURRENT STUDENTS

Student	Dept.	Degree	Role
Patricia Luna	TLAC	Ph.D.	Temp. Advisor
Wisdom Nudze	TLAC	Ph.D.	Temp. Advisor
Rhonda Newton	EPSY	Ph.D.	Co-Chair
Brittney Hawkins	TLAC	Ed.D.	Co-Chair (w/ Aldemir)
Kelli Adam	TLAC	Ph.D.	Chair
Seth Fewell	TLAC	Ed.D.	Chair
Monica Hernandez Valencia	TLAC	Ph.D.	Co-Chair (w/ Olson)
Jessica Cuellar	TLAC	Ed.D.	Member
Shontaire Butler	TLAC	Ed.D.	Member
Casey Koester	TLAC	Ed.D.	Member

Kristen Shumbera	TLAC	Ed.D.	Member
André Thomas	TLAC	Ph.D.	Member
LaTanza Haggerty-Allen*	TLAC	Ed.D.	Member
Salma Ali	TLAC	Ph.D.	Member
Carlotta Thomas	EAHR	Ed.D.	Member
Antonio Ketsetzi	TLAC	Ph.D.	Member
Cristina Covarrubias Cabrera*	EPSY	M.Ed.	Member
Hassie Wortham	TLAC	M.Ed.	Chair
Stephen Rhodes	TLAC	M.Ed.	Chair
Michael Jones	TLAC	M.Ed.	Chair
Halie Summers	TLAC	M.Ed.	Chair
Kimberly Garcia	EPSY	M.Ed.	Member
Amber Van Roekel	TLAC	M.Ed.	Chair

FORMER STUDENTS [GRADUATED]

Student	Dept.	Grad. Yr.	Degree	Role
Matthew Strader	TLAC	2024	Ed.D.	Chair
Rebecca Burgner	EPSY	2024	Ph.D.	Member
Hulya Avci	EPSY	2024	Ph.D.	Member
Jordan Boyce*	TLAC	2024	M.Ed.	Chair
Stacey Keener*	TLAC	2024	M.Ed.	Chair
Cristina Covarrubias Cabrera*	EPSY	2024	M.Ed.	Member
Lanora McNeil	TLAC	2021	Ed.D.	Chair (w/ Neshyba)
Ashley Leverett	TLAC	2021	Ed.D.	Chair (w/ Neshyba)
Manjari Banerjee	TLAC	2021	Ph.D.	Member
Seoyeon Park	TLAC	2021	Ph.D.	Member
Alex Square	EAHR	2021	M.S.	Member
Gloria Tachia	TLAC	2020	Ph.D.	Chair/Advisor (w/ Larke)
John Eric Salinas	TLAC	2020	Ed.D.	Chair
Adam Whitaker	TLAC	2020	Ed.D.	Chair (w/ Neshyba)
Toni Harrison-Kelly	TLAC	2020	Ed.D.	Co-Chair (w/ Laub)
Michele Norton	TLAC	2020	Ph.D.	Member
Nina J. Saint	TLAC	2020	Ph.D.	Member
Wei-Hong Ko	TLAC	2020	Ph.D.	Member
Seoyeon Park	TLAC	2020	Ph.D.	Member
Timothy P. Ditoro	TLAC	2020	Ed.D.	Member
Sharon K. Lopez	TLAC	2020	Ed.D.	Member
Syahrul Amin	TLAC	2020	M.S.	Member
Seung (Joe) Yoo	TLAC	2019	Ed.D.	Chair (w/ Neshyba)
Kayla Redwine	TLAC	2019	M.Ed.	Chair
Monica Burnett	TLAC	2019	M.Ed.	Chair
Julia Calabrese	TLAC	2019	M.Ed.	Member
Mario I. Suarez	TLAC	2018	Ph.D.	Member
Nickolaus A. Ortiz	TLAC	2018	Ph.D.	Chair/Advisor
Nneka Bernard	TLAC	2018	Ed.D.	Member
Michele Staley	TLAC	2018	Ed.D.	Member
Shelby Raney	TLAC	2018	M.Ed.	Chair

Sonia Guevara	TLAC	2018	M.Ed.	Chair
Samantha Kraatz	TLAC	2018	M.Ed.	Chair
Patricia Vance	TLAC	2018	M.Ed.	Chair
Paul Alvarez	SPMT	2018	M.S.	Member
Nasser Jabbari	TLAC	2017	Ph.D.	Member
Bonnie Irwin	TLAC	2017	M.Ed.	Chair
AnnaMarie Drymalla	TLAC	2017	M.Ed.	Chair
Brittany Hickerson	TLAC	2017	M.Ed.	Member
Alexandra Thomas	TLAC	2017	M.Ed.	Chair
Alan Ellinger	TLAC	2016	Ed.D.	Member
Hyunkyung Kwon	TLAC	2016	M.S.	Member
Melinda Carillo	TLAC	2016	M.Ed.	Chair
Kirsten Leystra	TLAC	2016	M.Ed.	Chair
James E. Farias	TLAC	2016	M.Ed.	Chair
Allison Trevino	TLAC	2016	M.Ed.	Chair
Maria Harrington	TLAC	2016	M.Ed.	Member
Taryn Gregg	TLAC	2015	M.Ed.	Chair
Mo Zhao	EPSY	2015	M.S.	Member
Kathryn Switzer	MATH	2015	M.S.	Member
Ayse Tugba Oner	TLAC	2015	Ph.D.	Member
Christopher Lee	TLAC	2014	Ph.D.	Member
Anna Pat Alpert	TLAC	2014	Ph.D.	Member
Sarah Jane Anderson	TLAC	2014	Ed.D.	Member
Susan Rogers	TLAC	2014	Ed.D.	Member
Diane Miller Peterson	TLAC	2014	Ph.D.	Member
Nicola Ritter	EPSY	2014	Ph.D.	Member
Gwendolyn Wilkins	TLAC	2014	M.Ed.	Member
Anna Pat Alpert	TLAC	2013	Ph.D.	Member
Dametra Skinner	TLAC	2013	Ph.D.	Member
Monica Thompson	TLAC	2013	M.Ed.	Co-Chair (w/ Walters)
Sonia Marrero	TLAC	2013	M.Ed.	Member
Zahira Merchant	EPSY	2012	Ph.D.	Member
Melanie Woods	TLAC	2012	Ph.D.	Member
Chih-Feng Chien	TLAC	2012	Ph.D.	Co-Chair/Advisor (Slattery)
Deanna Greene	TLAC	2012	M.Ed.	Co-Chair (Kelly)
Terry Kidd	TLAC	2011	Ph.D.	Co-Chair/Advisor (w/ Larke)
Zahra Moghadsian Rad	TLAC	2011	Ph.D.	Member
Ayana Allen	TLAC	2011	Ph.D.	Member
Su-yeon Kim	TLAC	2011	Ph.D.	Member
Muhammad Iqbal	TLAC	2011	M.Ed.	Co-Chair (w/ Larke)
Marsha Rohe	TLAC	2011	M.Ed.	Member
Lowell Kane	TLAC	2011	M.Ed.	Member
Kevin Richard	EDTC	2011	M.Ed.	Member
Nina Jo Saint	TLAC	2011	M.S.	Member
Stacey Kuehn	TLAC	2010	M.Ed.	Co-Chair/Advisor (Kelly)
Molly McCarty	TLAC	2010	M.Ed.	Member

Kathleen Everling	TLAC	2009	Ph.D.	Member
Kimberly Murawski	TLAC	2009	M.Ed.	Member
Tashia Terry	TLAC	2009	M.Ed.	Member
Judy Hudek	TLAC	2009	M.Ed.	Member
Helen Sullivan	TLAC	2008	Ph.D.	Member
Stephanie Bean	TLAC	2008	M.Ed.	Co-Chair
Erin Foster	TLAC	2008	M.Ed.	Member
Christina Gray	TLAC	2008	M.Ed.	Member
Lindsey Schoppe	TLAC	2008	M.Ed.	Member
Michael Twigg	TLAC	2008	M.Ed.	Member
Veronica Vallejo	TLAC	2008	M.Ed.	Member
Stacey Brown	TLAC	2007	M.Ed.	Member
Allison Schulz	TLAC	2007	M.Ed.	Member
Susan Skidmore	TLAC	2007	M.Ed.	Member
Tiffany Hamlin-Lipsett	TLAC	2006	M.Ed.	Member
Harold Skidmore	TLAC	2006	M.Ed.	Member
Valerie Stark	TLAC	2006	M.Ed.	Member

ADDITIONAL FORMER STUDENTS

Siwei Qi	TLAC	Ph.D.	Member (In. 2013)
Evangeline Chiang	TLAC	Ed.D.	Member (In.)
Bonnie Irwin	TLAC	M.Ed.	Member (In.)
April Lynn St. John	TLAC	M.Ed.	Member
Marlene Burns	TLAC	M.Ed.	Member
Jane Duke	TLAC	M.Ed.	Member
Mary Hlozek	TLAC	M.Ed.	Member
Virginia Huff	TLAC	M.Ed.	Member
Katie Phelan	TLAC	M.Ed.	Member

ADVANCED TRAINING AND ON-GOING PROFESSIONAL DEVELOPMENT

2022 – Constellate, Text Analysis Deep Dives, Course

2021 – Constellate, Opening, Writing, and Cleaning Data with Python, Course

2021 – Constellate, Text Analysis for Humanists, Course

2021 – Constellate, Introduction to Text Analytics (and beta evaluation of Constellate) 4-week Course

2021 – NSF and AAAS, Webinar – Improving Undergraduate STEM Education (IUSE), Focus on Level 1 and Building Capacity Submissions

2020 – NSF, Webinar – Improving Undergraduate STEM Education (IUSE), Focus on Pre-Service Teacher Education

2020 – AAAS, Webinar Discussion Series on Talking About Leaving Revisited (TALR), [STEM]

2020 – Dean of Faculties, Student Course Evaluations Better Practice Series, Texas A&M University

2019 – International Summit on ICT in Education, **EDUsummIT** (Invited Expert Working Group Member), Quebec City, Canada.

2019 – Interfolio Faculty Search Training for Committee Chairs

2019 – WWC, Webinar on Confounding in Group Design Studies

2019 – Strategies and Tactics for Recruiting to Improve Diversity and Excellence (STRIDE) Training, Texas A&M University

2018/19 – R for Data Science, edX Course
 2016 – NSF, Webinar on DR K-12 Solicitation (15-592)
 2015 – ADVANCE Workshop to Improve Faculty Recruitment – STRIDE
 2015 – NSF, Pre-service STEM Teacher Education IUSE Webinar
 2014 – NSF, IUSE: EHR Webinar - Undergraduate Education for Pre-Service STEM Teachers
 2013 – TLAC, Committee on Climate and Diversity, Immigration and Education: Issues Impacting Climate and Diversity in Schools, Families, and Society presented by Dr. David McCabe
 2012 – Blackboard Learn LMS Training, Instructional Technology Services (ITS)
 2011 – International Summit on ICT in Education, **EDUsummIT** (Invited Expert Working Group Member), UNESCO Headquarters, Paris, France
 2011 - AERA Conference, **Mixed Data Analysis Techniques** presented by Dr. Anthony Onwuegbuzie
 2010 –ISTE Conference, Teacher Education SIG **Seminar on Technological Pedagogical Content Knowledge (TPACK) presented by Punya Mishra and Matthew Koehler**
 2010 – Texas A&M University, Second Life Users Group
 2010 - Promethean Professional Development Session
 2009 - National Education Computing Conference, Teacher Education SIG Seminar
 2009 - **EDUsummIT** (Invited Expert Working Group Member), The Hague, Netherlands, Focus: Implications of findings from International Handbook of Information Technology in Primary and Secondary Education
 2009 - Writing Workshop for Assistant Professors, Dr. Patricia Goodson, CEHD
 2009 - The Academic Portfolio: A New and More Effective Way to Document Teaching, Research, and Service, Dean of Faculties and Associate Provost Office, TAMU
 2008 - **Quantitative Statistics Bi-Weekly Seminars with Dr. Bruce Thompson**, TAMU
 2008 - **Qualitative Research Methods Bi-Weekly Seminars with Dr. Yvonna Lincoln**, TAMU
 2008 - Using Qualtrics (for data collection and for building online surveys), Ben Smith, CEHD
 2007 - Podcasting Workshop (developing and integrating podcasts in instruction), Instructional Technology Services, TAMU
 2007 - Seminar for Online Executive Ed.D. Course Developers (Resources and Best Practices for Course Designers), Francis Hunter, CEHD
 2006 - Teaching Portfolio Workshop, Center for Teaching Excellence, Texas A&M University